

Title (en)
ELECTRODE FOR LITHIUM-ION SECONDARY BATTERY

Title (de)
ELEKTRODE FÜR LITHIUM-IONEN-AKKUMULATOR

Title (fr)
ELECTRODE POUR BATTERIE RECHARGEABLE AU LITHIUM-ION

Publication
EP 2403038 A4 20150318 (EN)

Application
EP 10746313 A 20100226

Priority
• JP 2010053060 W 20100226
• JP 2009046986 A 20090227

Abstract (en)
[origin: EP2403038A1] Disclosed is an electrode for a lithium-ion secondary battery which includes a porous membrane layer that is inhibited from decreasing in flexibility. The electrode for lithium-ion secondary battery comprises a current collector and, formed thereon in the following order, an electrode active-material layer comprising an electrode active material, a thickener, and a binder and a porous membrane layer containing an inorganic filler, wherein the binder is one which, when used to form a composite film comprising the binder and the thickener, forms a spherical island phase in a cross section of the composite film, the island phase having an average diameter of 0.5 μm or larger. The binder preferably is an unsaturated carboxylic acid ester polymer having a content of alkyl acrylate monomer units of 85 mass% or higher.

IPC 8 full level
H01M 4/13 (2010.01); **H01M 4/62** (2006.01); **H01M 10/052** (2010.01); **H01M 2/16** (2006.01)

CPC (source: EP KR US)
H01M 4/13 (2013.01 - EP KR US); **H01M 4/62** (2013.01 - EP KR US); **H01M 4/621** (2013.01 - US); **H01M 4/622** (2013.01 - EP US); **H01M 4/64** (2013.01 - US); **H01M 10/0525** (2013.01 - KR); **H01M 10/0566** (2013.01 - KR); **H01M 10/052** (2013.01 - EP US); **H01M 50/446** (2021.01 - EP US); **Y02E 60/10** (2013.01 - EP US)

Citation (search report)
• [I] US 6756153 B1 20040629 - YAMAMOTO HARUHISA [JP], et al
• [A] US 2002034686 A1 20020321 - YAMAKAWA MASAHIRO [JP], et al
• [A] US 2009053603 A1 20090226 - HOSHIBA KOJI [JP], et al
• [A] WO 2006107173 A1 20061012 - LG CHEMICAL LTD [KR]
• [A] EP 1746675 A1 20070124 - MATSUSHITA ELECTRIC IND CO LTD [JP], et al
• See references of WO 2010098434A1

Cited by
EP2838144A4

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)
EP 2403038 A1 20120104; EP 2403038 A4 20150318; EP 2403038 B1 20170920; CN 102334217 A 20120125; CN 102334217 B 20140507; HU E035297 T2 20180502; JP 4645778 B2 20110309; JP WO2010098434 A1 20120906; KR 101508808 B1 20150406; KR 20110125641 A 20111121; PL 2403038 T3 20180430; US 2011311870 A1 20111222; US 8822074 B2 20140902; WO 2010098434 A1 20100902

DOCDB simple family (application)
EP 10746313 A 20100226; CN 201080009381 A 20100226; HU E10746313 A 20100226; JP 2010053060 W 20100226; JP 2010526080 A 20100226; KR 20117019671 A 20100226; PL 10746313 T 20100226; US 201013138495 A 20100226